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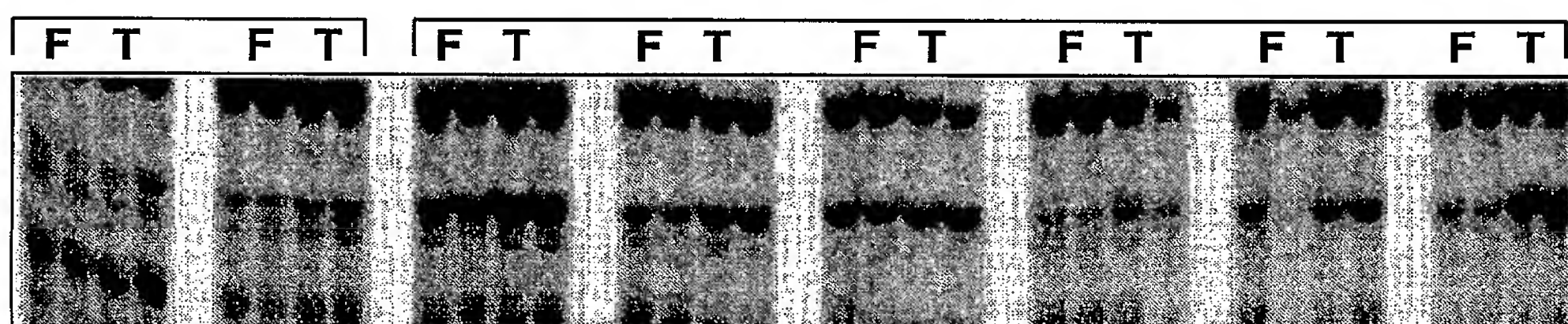
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(54) Title: DIAGNOSTIC AND THERAPEUTIC USE OF KCNE4 GENE AND PROTEIN FOR ALZHEIMER DISEASE

**Identification of differentially expressed
genes in a fluorescence differential display screen**

Non-AD Control

AD Patient



(57) Abstract: The present invention discloses the differential expression of the gene coding for KCNE4 protein in specific brain regions of Alzheimer's disease patients. Based on this finding, the invention provides a method for diagnosing or prognosticating Alzheimer's disease in a subject, or for determining whether a subject is at increased risk of developing Alzheimer's disease. Furthermore, this invention provides therapeutic and prophylactic methods for treating or preventing Alzheimer's disease and related neurodegenerative disorders using the KCNE4 gene and its corresponding gene products. A method of screening for modulating agents of neurodegenerative diseases is also disclosed.

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